XXXVI.—Bulletin of the British Ornithologists' Club.

Nos. XXXIV.-XXXVI.

No. XXXIV. (March 31st, 1896.)

THE Thirty-third meeting of the Club was held at the Restaurant Frascati, 32 Oxford Street, on Wednesday, the 18th of March, 1896.

### Chairman : P. L. SCLATER, F.R.S.

Members present :--G. BARRETT-HAMILTON, E. BIDWELL, Col. C. T. BINGHAM, J. H. BONHOTE, W. E. DE WINTON, A. DOWSETT, H. E. DRESSER, H. J. ELWES, A. H. EVANS, J. GERRARD, W. GRAHAM, W. R. OGILVIE GRANT, ERNST HARTERT, J. E. HARTING, P. M. C. KERMODE, Major A. P. LOYD, A. MCL. MARSHALL, JAS. MCL. MARSHALL, E. NEALE, R. NESHAM, HEATLEY NOBLE, F. MENTEITH OGILVIE, C. E. PEARSON, H. J. PEARSON, F. PENROSE, R. H. READ, Capt. SAVILE G. REID, HON. CHAS. ROTHSCHILD, HON. WALTER ROTHSCHILD, HOWARD SAUNDERS (*Treasurer*), R. BOWDLER SHARPE (*Editor*), CHARLES STONHAM, E. PRIAULX TENNANT, Major HORACE TERRY, H. M. WALLIS, C. B. WHARTON, JOHNSON WILKINSON, C. A. WRIGHT, COL. J. W. YERBURY, JOHN YOUNG.

Dining Visitors: J. W. CASTLE, W. E. CHAPMAN, Capt. A. COWIE, D. G. ELLIOT, GEORGE EVANS, C. H. FREEMAN, W. E. GRAHAM, H. OGILVIE GRANT, E. S. GROGAN, DONALDSON GUNN, JONATHAN HUTCHINSON, F.R.S., COL. F. W. JAMES, HERBERT MASSEY, HENRY MUNT, JOHN A. NORTON, M.D., GEO. PARKIN, T. PERKINS, H. STEVENS, W. MURRAY TUKE, W. F. URWICK, Dr. O. WOOD.

A number of visitors also attended the Meeting at 8.30.

Dr. BOWDLER SHARPE exhibited one of the volumes of original paintings of Woodpeckers, executed by the late Mr. Edward Hargitt. The total number of coloured figures was 1368, and on this stupendous task Mr. Hargitt had been engaged for more than fourteen years. The pictures,—said Dr. Sharpe,—as will be seen by the volume exhibited, represent the males, females, and young birds, as well as all the intermediate plumages and variations, which Mr. Hargitt had been able to draw from the specimens in his own collection and those in the public museums and private collections of the world. Considering that for many years he had suffered from indifferent health, and was engaged throughout the time on his own professional work, it was really a wonderful example of human energy to have produced such a series of beautiful paintings of Woodpeckers. Nearly 100 typical specimens were illustrated in the series, and many of them were of great interest, as not having been figured in any public work.

The letterpress, which had been entirely written out by Miss Hargitt, contained 1489 original descriptions, all of them carefully copied from the works in which they had appeared. The work, as completed, formed 14 stout 8vo volumes.

Dr. Sharpe had been carefully through the collection of Woodpeckers left by his late friend and he found that this collection was one of very great importance, containing 3538 specimens, representing 289 species, with 22 types.

The collection contained examples of several species not in the British Museum nor in any other collection, and there could be no doubt that in Mr. Hargitt's series would be found the material for a complete Monograph of the Picidæ, which could be rendered still more perfect by a study of the fourteen volumes of paintings of Woodpeckers executed by Mr. Hargitt. These volumes also contained a number of original observations on and corrections to Mr. Hargitt's work in the 'Catalogue of Birds.' In conclusion, Dr. Sharpe expressed a hope that this beautiful collection would find a resting-place in some public or private museum, where it would be fully appreciated, so that the original work of its late possessor would receive the acknowledgment which so many years of patient labour demanded.

Mr. SCLATER stated that he had been informed by Capt. S. Pasfield Oliver that the latter was about to publish a translation of the Journal of "Le Sieur D. B.," from a

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copy of this rare volume in the possession of Prof. Newton, at Cambridge. Mr. Sclater exhibited the Zoological Society's MS. copy of this book, which was formerly in possession of the late Charles Telfair, C.M.Z.S. The work was most interesting to ornithologists as containing an account by an eye-witness in 1671 of the plumage and habits of the Solitaire or Dodo of Rodriguez. It was now known that the name of the author of the volume was Du Bois, and that it was published in Paris in 1674. (*Cf.* Newton, Trans. Zool. Soc. vi. p. 374.)

Mr. E. BIDWELL invited the members to the Upper Hall, where an exhibition of Cuckoos' eggs and those of the fosterparents had been prepared; but before the adjournment for that purpose, he made a few remarks as to the scope of the exhibition. He also drew attention to the important difference in the weight of the Cuckoo's egg when compared with that of the majority of those of their foster-parents. By their much heavier weight the eggs of the Cuckoo could nearly always be distinguished. 150 eggs in his own collection, measured and weighed by him, gave the following results :—

Longest egg	24.50 millimètres.
Shortest egg	19.50 ,,
Broadest egg	18.75 "
Narrowest egg	14.50 "
Largest egg	$23.50 \times 18.75$ millimètres.
Smallest egg	$19.50 \times 14.50$ ,,
Heaviest egg	312 milligrammes.
Next heaviest egg	279 "
Lightest egg	141 ,,
Next lightest egg	147 "

The Members of the B. O. C. who exhibited specimens of eggs were as follows :---

			Cuckoos'.	Fosterers'.
E. BIDWELL		•	. 158	49
P. CROWLEY		٠	71	37

					C	nekoos'.	Fosterers'.
H. E. DRESSER	•					17	13
E. A. S. Elliot				٠		9	6
W. GRAHAM .						7	5
J. A. HARVIE-BR	ow	N				3	1
H. J. PEARSON .			۰			12	2
F. PENROSE						19	11
ROBERT H. READ						36	25
SAVILE G. REID						46	29
C. Rothschild						3	2
W. ROTHSCHILD						99	24
C. STONHAM .						16	10

The following gentlemen, non-members of the B. O. C., had kindly sent :--

				C	uckoos'.	Fosterers'.
W. M. CROWFO	07	1.			22	13
H. MASSEY .					275	50
J. A. NORTON					126	30

The total number of eggs of the Cuckoo exhibited was 919, and the accompanying clutches of eggs represented 76 species of foster-parents.

Mr. E. HARTERT, at Mr. Bidwell's request, had prepared a few notes on the recent observations of Dr. E. REY, and read the following remarks :—

"The majority of ornithologists had been of opinion that *Cuculus canorus* lays only a small number of eggs, *i.e.* 5 to 7 or so, and that a number of days (a week or so) passes between the laying of one egg and its follower. The work of Dr. E. Rey 'Altes und neues aus dem Haushalte des Kuckuks, 1892,' supposing his observations to be correct, exploded these theories entirely. Dr. Rey had come to many definite conclusions, of which the following were the most important ones :—

"1. The eggs of *Cuculus canorus* vary more in colour and markings than those of any other bird.

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- "2. The most important characters of the eggs of *Cuculus* canorus are their form, the weight of their shells, and above all their thickness and hardness.
- "3. The majority of the eggs of *Cuculus canorus* resemble in colour and markings the type of one of our common Passerine Birds; while some show a kind of mixed type, and some do not exactly resemble any known eggs.
- "4. The eggs laid in the nests of Ruticilla phanicurus and Fringilla montifringilla are nearly always like those of the nest-owners in colour and markings (57 out of 67 in those of the former, and all in those of the latter). Imitations are also common in nests of Sylvia cinerea, Sylvia hortensis, Acrocephalus streperus, and A. phragmitis, while they are rare in others, and have never yet been found in nests of Troglodytes parvulus, Accentor modularis, and the different Phylloscopi. In most countries it may be said that there are many more Cuckoos' eggs which do not imitate those of other birds than those which are successful imitations.
- "5. Most Cuckoos are in the habit of placing their eggs in nests of one species of bird, and take to other nests only if they cannot find their habitual nests.
- "6. They use, as a rule, one and the same district (mostly very limited) for depositing their eggs year after year.
- "7. Neither the ovary nor the development of the eggs of the Cuckoos differ in any way from those of other birds.
- "8. The female Cuckoo lays about 20 eggs every year, and these are laid on alternate days.
- "9. Each female Cuckoo lays similar eggs during its life.
- "10. Each female lays only one egg in one nest. If more than one be found they invariably belong to different females.
- "11. The time when the females lay varies greatly.
- "12. The female removes, in most cases (but not always), some of the eggs of the nest-owners."

Ornithologists' Club.

After some remarks by several of the members, a hearty vote of thanks to Mr. BIDWELL for the trouble he had taken in organizing the present exhibition was proposed by Mr. Howard Saunders, and carried by acclamation.

The following list, prepared by Mr. BIDWELL, was laid before the Meeting :--

#### LIST OF

### WESTERN PALÆARCTIC BIRDS

### IN THE NESTS OF WHICH

#### CUCKOOS' EGGS HAVE BEEN FOUND.

[The figures refer to the number of specimens of Cuckoos' eggs of each species exhibited on this occasion.]

1	MISTLE-THRUSH.	Turdus viscivorus, Linn.
1	SONG-THRUSH.	Turdus musicus, Linn.
	FIELDFARE.	Turdus pilaris, Linn.
2	BLACKBIRD.	Turdus merula, Linn.
2	RING-OUZEL.	Turdus torquatus, Linn.
	Rock-Thrush.	Monticola saxatilis (Linn.).
8	WHEATEAR.	Saxicola œnanthe (Linn.).
1	ISABELLINE WHEATEAR.	Saxicola isabellina, Rüppell.
1	BLACK-THROATED WHEAT-	Saxicola stapazina, Vieillot.
	EAR.	
	EASTERN BLACK-THROATED	Saxicola melanoleuca (Güld.).
	Снат.	
	EARED WHEATEAR.	Saxicola albicollis (Vieillot).
1	EASTERN PIED WHEATEAR.	Saxicola morio, Ehrenb.
9	WHINCHAT.	Pratincola rubetra (Linn).
7	STONECHAT.	Pratincola rubicola (Linn.).
	WHITE-TAILED STONECHAT.	Pratincola hemprichi (Ehrenb.)
2.1	REDSTART.	Ruticilla phænicurus (Linn.).
1	BLACK REDSTART.	Ruticilla titys (Scop.).
1	BLUE-THROAT.	Cyanecula suecica (Linn.).
	WHITE-SPOTTED BLUE-	Cyanecula leucocyanea, Brehm.
	THROAT.	
	REDBREAST.	Erithacus rubecula (Linn.).
2	NIGHTINGALE.	Daulias luscinia (Linn.).
		2 г 2

THRUSH-NIGHTINGALE.

- 38 WHITETHROAT.
- 12 LESSER WHITETHROAT. BLACK-HEADED WARBLER.
  - 3 ORPHEAN WARBLER.
- 33 BLACKCAP.
- 47 GARDEN-WARBLER.
- 2 SUBALPINE WARBLER. SPECTACLED WARBLER.
- 13 BARRED WARBLER.
  - 2 DARTFORD WARBLER.
  - 1 GOLDEN-CRESTED WREN.
  - 1 FIRE-CRESTED WREN.
- 10 CHIFFCHAFF.
- 10 WILLOW-WREN. BONELLI'S WARBLER.
  - 4 WOOD-WREN. GREY-TAILED WARBLER.
  - 4 ICTERINE WARBLER. MELODIOUS WARBLER.
  - 1 BOOTED WARBLER.
- 62 REED-WARBLER.
- 35 MARSH-WARBLER.
  - 7 GREAT REED-WARBLER.
- 41 SEDGE-WARBLER.
  - 3 AQUATIC WARBLER.

PADDY-FIELD WARBLER.

- 7 GRASSHOPPER WARBLER.
- 2 RIVER-WARBLER. CETTI'S WARBLER.
- 74 Hedge-Sparrow. Alpine Accentor. Dipper.
  - 1 GREAT TITMOUSE.
- 23 WREN.
- 2 TREE-CREEPER.
- 34 PIED WAGTAIL.
- 32 WHITE WAGTAIL.

Daulias philomela (Bechst.). Sylvia cinerea, Bechst. Sylvia curruca (Linn.). Sylvia melanocephala (Gm.). Sylvia orphea, Temm. Sylvia atricapilla (Linn.). Sylvia hortensis, Bechst. Sylvia subalpina, Bechst. Sylvia conspicillata, Marm. Sylvia nisoria (Bechst.). Sylvia undata (Bodd.). Regulus cristatus, K. L. Koch. Regulus ignicapillus (C. L. Brehm). Phylloscopus rufus (Bechst.). Phylloscopus trochilus (Linn.). Phylloscopus bonellii (Vieill.). Phylloscopus sibilatrix (Bechst.). Aëdon familiaris (Ménét.). Hypolais icterina (Vieillot). Hypolais polyglotta (Vieillot). Hypolais caligata (Licht.). Acrocephalus streperus (Vieillot). Acrocephalus palustris (Bechst.). Acrocephalus turdoides (Meyer). Acrocephalus phragmitis (Bechst.). Acrocephalus aquaticus (J. F. Gmelin). Acrocephalus agricola (Jerdon). Locustella nævia (Bodd.). Locustella fluviatilis (M. & W.). Potamodus cettii (Marm.). Accentor modularis (Linn.). Accentor collaris (Scop.). Cinclus aquaticus, Bechst. Parus major, Linn. Troglodytes parvulus, K. L. Koch.

- Certhia familiaris, Linn. Motacilla lugubris, Temm.
- Motacilla alba, Linn.

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- 4 GREY WAGTAIL.
- 16 BLUE-HEADED WAGTAIL.
- 3 BLACK-HEADED YELLOW WAGTAIL.
- 12 YELLOW WAGTAIL.
- 33 TREE-PIPIT.
- 49 Meadow-Pipit. Red-throated Pipit.
  - 2 TAWNY PIPIT. Richard's Pipit. Water-Pipit.
  - 2 Rock-Pipit. Golden Oriole. Great Grey Shrike.
  - 1 Lesser Grey Shrike. Isabelline Shrike.
- 25 RED-BACKED SHRIKE. 5 WOODCHAT.
- 12 SPOTTED FLYCATCHER.
  - 1 PIED FLYCATCHER.
  - 2 SWALLOW. MARTIN.
- 14 GREENFINCH. HAWFINCH. GOLDFINCH.
  - 1 SERIN.
  - 3 HOUSE-SPARROW.
- 2 TREE-SPARROW.
- 11 CHAFFINCH.
  - 1 BRAMBLING. SNOWFINCH.
- 15 LINNET. MEALY REDPOLE. LESSER REDPOLE.
  - 7 TWITE.
  - 3 Bullfinch. Northern Bullfinch.
  - 1 BLACK-HEADED BUNTING.
  - 2 CORN-BUNTING.
- 23 YELLOW BUNTING.

Motacilla melanope, Pallas. Motacilla flava, Linn. Motacilla viridis, Gmelin.

Motacilla raii (Bonaparte). Anthus trivialis (Linn.). Anthus pratensis (Linn.). Anthus cervinus (Pallas). Anthus campestris (Linn.). Anthus richardi, Vieillot. Anthus spipoletta (Linn.). Anthus obscurus (Latham). Oriolus galbula, Linn. Lanius excubitor, Linn. Lanius minor, J. F. Gmelin. Lanius isabellinus, Ehrenb. Lanius collurio, Linn. Lanius pomeranus, Sparrman. Muscicapa grisola, Linn. Muscicapa atricapilla, Linn. Hirundo rustica, Linn. Chelidon urbica (Linn.). Ligurinus chloris (Linn.). Coccothraustes vulgaris, Pallas. Carduelis elegans, Stephens. Serinus hortulanus, K. L. Koch. Passer domesticus (Linn.). Passer montanus (Linn.). Fringilla cælebs, Linn. Fringilla montifringilla, Linn. Montifringilla nivalis (Linn.). Acanthis cannabina (Linn.). Acanthis linaria (Linn.). Acanthis rufescens (Vieillot). Acanthis flavirostris (Linn.). Pyrrhula europæa, Vieillot. Pyrrhula major, Brehm. Emberiza melanocephala, Scopoli. Emberiza miliaria, Linn. Emberiza citrinella, Linn.

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1	MEADOW-BUNTING.	Emberiza cia, Linn.
2	CIRL BUNTING.	Emberiza cirlus, Linn.
	YELLOW-BREASTED BUNTING.	Emberiza aureola, Pallas.
<b>2</b>	ORTOLAN.	Emberiza hortulana, Linn.
16	REED-BUNTING.	Emberiza schaniclus, Linn.
	LAPLAND BUNTING.	Calcarius lapponicus (Linn.).
	STARLING.	Sturnus vulgaris, Linn.
	JAY.	Garrulus glandarius (Linn.).
	MAGPIE.	Pica rustica (Scopoli).
	JACKDAW.	Corvus monedula, Linn.
7	SKY-LARK.	Alauda arvensis, Linn.
<b>2</b>	WOOD-LARK.	Alauda arborea, Linn.
<b>2</b>	CRESTED LARK.	Alauda cristata, Linn.
	SHORT-TOED LARK.	Alauda brachydactyla, Leisler.
	WHITE-WINGED LARK.	Alauda sibirica, J. F. Gmelin.
	DESERT-LARK.	Ammomanes deserti (Licht.).
	GREEN WOODPECKER.	Gecinus viridis (Linn.).
	RING-DOVE.	Columba palumbus, Linn.
	STOCK-DOVE.	Columba ænas, Linn.
	TURTLE-DOVE.	Turtur communis, Selby.
	LITTLE GREBE.	Podicipes fluviatilis (Tunstall).

### No. XXXV. (April 29th, 1896.)

THE thirty-fourth meeting of the Club was held at the Restaurant Frascati, 32 Oxford Street, on Wednesday, the 15th of April, 1896.

## Chairman: PHILIP CROWLEY.

Members present: —E. BIDWELL, W. CHAMBERLAIN, STE-PHENSON R. CLARKE, W. R. OGILVIE GRANT, E. HARTERT, Major A. P. LOYD, J. G. MILLAIS, R. NESHAM, HEATLEY NOBLE, H. J. PEARSON, T. DIGBY PIGOTT, C.B., HON. WALTER ROTHSCHILD, HON. N. CHARLES ROTHSCHILD, HOWARD SAUNDERS (*Treasurer*), R. BOWDLER SHARPE (*Editor*), H. M. WALLIS, JOHNSON WILKINSON, C. A. WRIGHT, JOHN YOUNG.

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Visitors : Boyd Alexander, A. Cholmondeley, Bertram Danford, R.E., N. H. Joy, C. M. Digby Pigott, H. Stevens.

Mr. HOWARD SAUNDERS exhibited a specimen of Oceanodroma cryptoleucura from the collection of Mr. Boyd Alexander. The bird in question was picked up dead on the beach at Littlestone, in Kent, on the 5th of December, 1895, and was seen in the flesh by Mr. Alexander. This was the first instance of the occurrence of the species in Great Britain.

Dr. BOWDLER SHARPE exhibited a specimen of the leterine Warbler (*Hypolais icterina*), obtained near Wells, in Norfolk, by Mr. N. H. Joy.

Mr. WALTER CHAMBERLAIN exhibited photographs of some interesting birds which he had living in confinement, one of them being an Australian Crane, which had walked with a wooden leg for the past few years. He also showed some interesting examples of radiography taken by himself.

The Hon. WALTER ROTHSCHILD exhibited specimens of his new species, Astrapia splendidissima, and of the three known species of Amblyornis.

Mr. E. BIDWELL exhibited, by the kind permission of Mr. Henry Stevens, an egg of the Great Auk (*Alca impennis*). This egg had been purchased on the 23rd of May, 1841, from F. Schultz, of Dresden, by Hugh Reid, of Doncaster, who sold it in the same year to the late Mr. James Hack Tuke, of Hitchin, in whose collection it had remained up to the present time.

Mr. ERNST HARTERT pointed out the differences between the Masked Grosbeak of Japan (*Eophona personata*) and the form found in Amur-land, and exhibited specimens of both races. He proposed to call the Siberian form

EOPHONA PERSONATA MAGNIROSTRIS, SUDSP. n.

Similis E. personatæ, ex insulis Japonicis, sed rostro multo majore (maris culm. 29 mm. nec 22), scapularibus uropygioque grisescentioribus distinguenda.

Dr. BOWDLER SHARPE made some remarks on recent papers by Dr. J. A. Allen and Mr. Frank M. Chapman on the changes of colour in the plumage of birds without moult. Dr. Allen especially disagreed with the conclusions put forward by the late Edward Blyth and other English and German naturalists. As regarded the points in which Dr. Allen differed from the conclusions of Dr. Sharpe, the latter reaffirmed his conviction on the subject, and could not endorse Dr. Allen's views.

A discussion followed, in which the Hon. WALTER ROTH-SCHILD, Mr. HOWARD SAUNDERS, Mr. JOHN YOUNG, Mr. HARTERT, and others took part, but, owing to the lateness of the hour, the debate was adjourned until the next meeting of the Club on May 20th, when Mr. OGILVIE GRANT, Mr. J. G. MILLAIS, Dr. BOWDLER SHARPE, the Hon. WALTER ROTHSCHILD, and other ornithologists, promised to bring specimens to illustrate their opinions on the subject.

Mr. PHILIP CROWLEY moved a resolution of sympathy with Count Salvadori, an universally esteemed member of the B.O.C., in the long and painful illness from which he was suffering. This was carried unanimously.

### No. XXXVI. (May 30th, 1896.)

THE thirty-fifth meeting of the Club was held at the Restaurant Frascati, 32 Oxford Street, on Wednesday, the 20th of May, 1896.

Chairman: P. L. SCLATER, F.R.S.

Members present :--E. BIDWELL, PHILIP CROWLEY, W. E. DE WINTON, J. H. GURNEY, ERNST HARTERT, J. G. MILLAIS, W. R. OGILVIE GRANT, F. PENROSE, A. B. R. TREVOR-BATTYE, C. A. WRIGHT.

A paper, illustrated by specimens, was read from Dr. E.

A. S. ELLIOT, describing the seasonal changes of plumage in the Long-tailed Duck (*Harelda glacialis*). Dr. Elliot remarked as follows :---

"The seasonal change in this Duck is particularly intercsting, in that the species differs from most of the *Anatidæ* in having a complete summer plumage.

"This change is due to a complete moult of the pattern on the head, neck, and dorsal region in the male, and to a thorough moult in the female, excepting the white feathers of the belly and the wings. This moult takes place before the birds move northwards, and it is a change which we may suppose to bring it more in harmony with the surroundings of its summer home. We notice, too, that this change is not confined to the male, but is also shared by the female, which becomes distinctly darker as the spring progresses.

"From February to the end of May, by which time the change of plumage is completed, the bird is in moult, the long sickle-shaped white scapulars being some of the last feathers to fall.

"This may be very well traced in the specimens exhibited, which have been obtained in the early months of the year. This Duck being a typical deep-sea Duck, revelling in the green seas of the North Atlantic, and seldom approaching land except in the breeding-season, it appears to follow that this change takes place simply to afford it some protection from its traditional enemies, for of all the family this Duck nests in the most accessible places, near rivers and in swamps, on the ground, whereas others of the same family, e. g. the Golden-eye and the Harlequin, seek more secure nestingsites. The Long-tailed Duck would undoubtedly, if not thus protected by a garb assimilating to the surroundings, be the prey of each and every animal in the Arctic region.

"It cannot be said that the change from the strikingly beautiful winter plumage to that of the more sombre garb of summer is one assumed with a view to attract the other sex, and the fact that it is only the upper part of the body that is moulted—the black feathers of the breast and white ones of the belly being retained as in winter—is further presumptive evidence that the change is one effected with the design of concealment. Moreover, in the Orkneys the birds are observed to have paired by April, whilst they are yet in winter plumage.

"The down which the female uses for lining her nest appears as a distinctly new growth on the breast and belly; it is very thick, and darker in colour than eider-down. The male supplies no down.

"This Duck certainly feeds on fish as well as on molluses; for the stomachs of all those examined, without exception, contained fish-scales.

"The eyes pass from straw-colour in the winter dress to dark hazel in summer. I have not noticed any with a red iris."

The discussion on Dr. J. A. ALLEN'S recent paper on the changes of plumage in birds was resumed, and Mr. J. G. MILLAIS exhibited a series of *Harelda glacialis* showing the whole of the changes of the male from its winter plumage to the full breeding-dress. He also exhibited specimens of the Sanderling, the Sclavonian Grebe, and the Ptarmigan, showing that in the two last-named species the change in plumage was effected by an absolute alteration in the pattern of the feather, and not by a moult.

Mr. W. R. OGILVIE GRANT supplemented the remarks of Mr. Millais by exhibiting a series of flank-feathers taken from female Red Grouse between the months of October and May, showing the alteration of the patterns month by month.

Mr. ERNST HARTERT also exhibited a series of Birds of Paradise, Lophorhina, Diphyllodes, &c., which showed a gradual change of pattern in the feather, without a moult.

A paper on the subject will be published later on, in which Dr. BOWDLER SHARPE (who was unfortunately absent from the meeting through illness) will oppose Dr. Allen's views on the subject of moulting. The verdict of the majority of the Members present at the meeting was that a change of pattern in the feathers of certain birds was absolutely certain.

